REMARKS

This amendment is in response to a first Office action (Paper No. 6) mailed 8 October 2003. Upon entry of this amendment, claims 1-40 will be pending in this application.

The specification has been amended in accordance with the suggestions of the Examiner.

Claim 1 has been amended to include the claimed matter of claims 9 and 10. Claims 1- 40 are pending in the application.

Claims 1- 40 are rejected.

The specification is objected to by the Examiner.

The specification has been amended to correct the informalities mentioned by the Examiner.

With respect to the rejection of claims 1-13, 16-25, 27-33, 36, 37, and 40 under 35 U.S.C. 102(a) by Mokhtari et al (IEEE Proceedings ISCAS '99, Vol.2, 30 May-2 June 1999, pages 5080511),

applicant submits that Mokhtari et al despite detecting a bit-rate of a variable input signal, Mokhtari et al does not disclose the concept of low-pass-filtering, analyzing the resulting voltage level and determining the bit rate as in Applicant's invention.

Regarding claims 1 and 17, Mokhtari et al utilizes Phase Locked loop and a sampling method which is different from Applicant's invention of low-pass filtering, analyzing the resulting voltage level and determining the bit rate as in the present invention.

Regarding claim2, since claim 2 is dependent upon claim 1(amended in this response) claim

1 now incorporates the subject matter of claim 9 and claim 10 which distinguishes it from Mokhtari et al, and is submitted to be allowable.

Regarding claims 3, 4, and 5, these claims are dependent upon claim 1 now amended to include the matter of claim 9 and 10 since Mokhtari et al shows an "edge detector EXOR-gates an input signal with a delayed signal"; therefor, since claim 1 is not taught by Mokhtari et al as explained above, claims 3, 4, and 5 are submitted to be allowable.

Regarding claims 6 and 30 as being disclosed by Mokhtari et al, claims 6 and 30 are dependent upon claims 1 and 28 respectively which claims are not taught by Mokhtari et al which does not disclose a structure of the low-pass-filtering, analyzing the resulting voltage level and determining the bit rate as in applicant's invention. Therefor claims 6 and 30 are submitted to be allowable.

Regarding claims 7 and 32being disclosed by Mokhtari et al, claims 7 and 32 are dependent upon claims 1 and 28 which are submitted to be allowable as explained above.

Regarding claims 8 and 18 being disclosed by Mokhtari et al wherein Mokhtari et al discloses that the comparing performed by the identification unit corresponds to the identification unit performing an exclusive-OR logic operation upon the first and second signals, applicant submits that since claims 8 and 18 depend upon claims 1 and 17 respectively which claims are not taught by Mokhtari et al which teaches scalable PLL and sampling of signals. Claims 8 and 18 are submitted to be allowable.

Regarding claim 9 which is dependent upon claim 1 now amended to more accurately claim applicant's invention, applicant submits that claim 9 is allowable because the base claim 1 is not

taught by Mokhtari et al which shows using a scalable PLL and sampling circuitry.

Regarding claims 10 and 33, dependent upon claims 1 and 28 respectively, being shown by Mokhtari et al, applicant submits that claims 10 and 33 are allowable because although Mokhtari et al discloses detecting a bit-rate of a variable input signal, the structure of Mokhtari et al is characterized by using PLL and not a structure of low-pass-filtering, analyzing the resulting voltage level and determining the bit rates as in applicant's invention.

Regarding claims 11 and 37, dependent upon claims 1 and 28 respectively, as being shown by Mokhtari et al in that the filtering corresponds to low-pass filtering, applicant submits that Mokhtari et al teaches using a "bank"of VCO's and the system is adapted to the chosen bit-rate, for this and the above reasons applicant submits that claims 11 and 37 are allowable.

Regarding claims 12 and 13, both of which are dependent on claim 1 now amended, applicant submits that Mokhtari et al teaches a phase locked loop-based structure and a sampling structure on the one hand and bank of VCO oscillators for bit-rate variant data regeneration which do not show applicant's invention of low-pass filtering, analyzing the resulting voltage level and determining the bit rate, and therefor claims 12 and 13 are submitted to be allowable.

Regarding claims 16, 27, 29, 36, and 40 as shown by Mokhtari et al, applicant submits tha in applicant's invention a bit rate deriving unit 40b low-pass-filters the sensing signal and detects the bit rate from the resulting voltage level, this is not taught by using a "bank" of VCO's with the proper tuning range wherein the filter parameters need to be updated if a low-jitter solution is desirable. Claims 16, 27, 29, 36, and 40 are therefor submitted to be allowable.

Regarding claims 19 and 25, applicant submits that although the Mokhtari et al reference

discloses detecting a bit-rate of a variable input signal, Mokhtari et al is characterized by using PLL and not a structure of low-pass filtering, analyzing the resulting voltage level, and determining the bit rate as in applicant's invention.

Regarding claim 20, dependent on claim 17, applicant submits that for reasons described above Mokhtari et al does not show applicant's invention and it is submitted to be allowable.

Regarding claims 21 and 24, both dependent on claim 17, applicant again submits that Mokhtari et al does not teach a structure of low-pass filtering, analyzing the resulting voltage level and determining the bit rate as in the present invention, and therefor the claims 21 and 24 are submitted to be allowable.

Regarding claims 22 and 30, dependent on claims 17 and 28 respectively, applicant submits that Mokhtari et al does ot show a structure of low-pass-filtering, analyzing the resultant voltage level and determining the bit rate as in the present invention; claims 22 and 30 are submitted to be allowable.

Regarding claim 23 dependent upon claim 17, relating to receiving optical signals having a plurality of different bit rates, applicant submits that claim 23 is allowable for the reason that Mokhtari et al does not disclose a structure of low-pass filtering, analyzing the resultant voltage level and determining the bit rate as in the present invention.

Regarding claim 28(Independent) as shown by Mokhtari et al applicant submits that this claim is allowable based on all of the above reasons submitted by applicant.

CLAIM REJECTIONS UNDER 35 USC SEC. 103

Regarding claims 15, 35, 39, and 26 as obvious by Mokhtari et al by Uda et al(EP 0342010), applicant submits that Uda et al discloses extracting a timing wave having a predetermined bit rate from a received signal, which is different from the present invention of detecting the bit rate of input optical signals having different bit rates. In addition, Uda et al teaches supplying an inverted input signal rather than a delayed signal with the original signal which teaches against applicant's invention which applicant submit's is not obvious. Claims 15, 35, 39, and 26 are submitted to be allowable.

In regard to the rejection of claims 14, 34, and 38 under 35 USC 103(a) by Mokhtari et al in view of Uda et al and in further view of Ishihara, applicant submits that Ishihara teaches doubling the input frequency data and detecting the phase difference between the output of the doubler and that of a VCO output rather than disclosing a structure for low-pass-filtering, analyzing the resulting voltage level and determining the bit rate as in applicant's invention. For these reasons applicant submits that claims 14, 34, and 38 are allowable.

A terminal disclaimer is forwarded with this amendment to overcome the provisional rejection of claims 1-38 which are submitted to be allowable based on common ownership with application 09/484,061.

Applicant submits that claims 1-40 are allowable and requests an action in that regard.

A fee of $110.00 is incurred by the filing of the accompanying terminal disclaimer under 37 C.F.R §1.20(d). Should applicant's check become lost, separated or misplaced in the Office, the Commissioner is authorized to charge deposit account 02-4943 of Applicant's undersigned attorney, and to notify the undersigned attorney.

In view of the above, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. Reconsideration of the rejections and objections is requested. Should any questions remain unresolved, the Examiner is requested to telephone Applicant's attorney.

Respectfully submitted,

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